

### REMARKS

This application has been carefully reviewed in light of the final Office Action dated August 27, 2007. As indicated above, claims 5, 6, 12, 13, 19 and 20 have been cancelled herein, without prejudice or disclaimer of subject matter, and new claims 21 to 23 have been added. Claims 1, 7 and 14 are the independent claims. Reconsideration and further examination are respectfully requested.

In the Office Action, claims 1 to 20 were objected to under 35 U.S.C. § 112, ¶ 2, for various formalities reasons. In response, the Applicants have amended claims 1, 7 and 14 to address each of the formalities concerns, except for the Office Action's allegation that the feature "the remote application" lacks antecedent basis. As noted above, the feature of "a remote application" is indeed recited in all of claims 1, 7 and 14, in the first line following each respective preamble. Withdrawal of the all § 112 rejections and further examination are respectfully requested.

Claims 1 to 20 were also rejected under 35 U.S.C. § 103(a) over "Remote Debugging Server Side Java," 1999 ("Oracle") in view of allegedly Admitted Prior Art ("APA"), further in view of "BC-SAPRouter," 2000 ("BC-SAPRouter") and U.S. Patent No. 7,136,857 ("Chen"). As indicated above, claims 5, 6, 12, 13, 19 and 20 have been cancelled herein, without prejudice or disclaimer of subject matter, and without conceding the correctness of the rejection. Furthermore, independent claims 1, 7 and 14 have been amended to further clarify several additional features, as described more fully below. Since support for these features is found throughout the specification, including at least ¶¶ [0028] to [0031] of the specification, no new matter is believed to have been added. Withdrawal of the § 103 rejection and further examination are respectfully requested.

First and foremost, the Applicants respectfully object to the Examiner's allegation that one of ordinary skill in the art would be motivated to combine the three above-noted references with alleged APA, as a basis for rejecting the claims. As articulated by the Supreme Court, "[a] patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art." *KSR Int'l Co. v. Teleflex*, 127 S.Ct. 1727, 1731 (2007). According to the Court, it can be "important to identify a reason that would have

prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed. *Id.* In this case, the Office Action fails to establish a proper motivation or reason for modifying Oracle, BC-SAPRouter, Chen, and the alleged APA.

For instance, the Office Action fails to show why—aside from an attempt to meet the terms of Applicants' claims—a skilled artisan would have opted to *a)* use the received timestamp to determine that the local copy is not up to date with respect to the remote application, *b)* to compare, on the remote site, the local copy as originally downloaded with the remote application to establish delta information that identifies differences between the local copy and the modified remote application, *c)* to retrieve the delta information from the remote site, using the retrieved delta information to alter the local copy to match the modified remote application, and *d)* to load the altered local copy into the debugging system. Even if Chen's system contemplated these features, the cited portions of the reference itself are not seen to suggest such a desirability. The Office Action does not show why a skilled artisan would have selected the particular features, as claimed, and does not explain how such a modification would improve or otherwise affect the ability of Chen's system to distribute components or files. Therefore, the Applicants submit that the Office Action has attempted to reconstruct Chen's system using improper hindsight reliance on the Applicants' disclosure. For at least these additional reasons, the § 103 rejection of claims 1 to 20 is improper.

With regard to particular claim language, independent claim 1 recites a computer-implemented method, including downloading, at a remote site, an application to run as a remote application on a virtual machine located on the remote site, modifying the remote application at the remote site to generate a modified remote application, and requesting, from the remote site, a local site to run a debugging system on the modified remote application running on the remote site. The method also includes running the debugging system on the local site, the local site being separated from the remote site by at least one firewall, establishing a communication link between a first router located on the local site and a second router located on the remote site, and using the communication link between the first and second routers to establish communication between the debugging system and the virtual machine. Furthermore, the method includes receiving a timestamp indicating when the remote application was last modified at the remote site, determining, based on receiving the timestamp, whether a local copy

of the remote application is present on the local site, and retrieving, if it is determined that the local copy is not present on the local site, the local copy from the remote site. Moreover, the method includes determining, based on receiving the timestamp, whether more than one local copy is stored on the local site, selecting a matching local copy from the more than one local copy based on the received timestamp, and determining whether the local copy is up to date with respect to the remote application based on the received timestamp. If it is determined that the local copy is not up to date, the method includes determining delta information that identifies differences between the local copy as originally downloaded with the remote application and the modified remote application, retrieving the delta information from the remote site, using the retrieved delta information to alter the local copy to match the modified remote application, and loading the retrieved, matched or altered local copy into the debugging system. Additionally, the method includes debugging, using the communication link between the first and second routers, the loaded local copy of the remote application at the local site, including sending commands from the local site to the remote application between the first and second routers, and receiving, via the first and second routers, run-time data and state information about the remote application at the local site based on sending the commands.

Independent claims 7 and 14 respectively recite a computer program product and a system with similar features to the method recited by independent claim 1.

The applied references are not seen to disclose, teach or to suggest the foregoing features recited by the independent claims. In particular, neither Oracle, BC-SAPRouter, Chen, nor the alleged APA are seen to disclose at least the features of, nor does the Office Action even assert that the references disclose the features of, *i)* determining, based on receiving the timestamp, whether a local copy of the remote application is present on the local site; *ii)* retrieving, if it is determined that the local copy is not present on the local site, the local copy from the remote site; *iii)* determining, based on receiving the timestamp, whether more than one local copy is stored on the local site; *iv)* selecting a matching local copy from the more than one local copy based on the received timestamp; or *v)* debugging, using the communication link between the first and second routers, the loaded local copy of the remote application at the local site, further including sending commands from the local site to the remote application between the first and second

routers, and receiving, via the first and second routers, run-time data and state information about the remote application at the local site based on sending the commands.

Oracle discloses a technique for performing remote debugging, under circumstances where a firewall is not interposed between a debugger and a debuggee, remote application. *See* Oracle, pg. 1. To accomplish debugging, Oracle JDeveloper is seen to be started at a local site, and the remote application is selected. *See* Oracle, pg. 6. A breakpoint in the remotely sited, remote application is set. *See* Oracle, pp. 7 and 8. When the remote application is started, the debugger will stop at the set breakpoint of the *remotely-sited* code. As Oracle mentions that the *remotely-sited* code can be debugged "as if" it were being debugged locally, the Applicants understand that (unlike the claims) the debugged code is not *actually* being debugged locally. Since the independent claims recite the feature that the loaded *local* copy of the remote application is debugged, the independent claims are clearly contradistinctive from Oracle.

The Applicants have further amended the claims to clarify that debugging the *loaded* local copy of the remote application includes, *inter alia*, sending commands from the local site to the remote application. Although the Office Action asserts that a sending operation is taught in pages 8 and 9 of Oracle, the Applicants again respectfully disagree. Specifically, the operations of specifying a location of the remotely sited code to attach to and debug are believed to be preliminary operations that occur prior to debugging, and are not included as part of a debugging operation itself. With regard to receiving run-time data, the Office Action's conclusion that run-time data and state information are received via the communication link when the specified breakpoint is reached is further evidence that the code being debugged is remotely-sited, and not a local copy of the code which has been loaded into the debugging system.

Neither BC-SAPRouter, Chen nor the alleged APA are believed to remedy the deficiencies of Oracle. With regard to "version control" allegedly taught by Chen, the cited portion of that references is not seen to describe, nor does the Office Action assert that Chen or any other reference describes, the newly clarified features of determining, based on receiving the timestamp, whether a local copy of the remote application is present on the local site; retrieving, if it is determined that the local copy is not present on the local site, the local copy from the remote site; determining, based on receiving the timestamp, whether more than one local copy is

stored on the local site; or selecting a matching local copy from the more than one local copy based on the received timestamp.

Finally, in a genuine effort to advance prosecution, the Applicants have also added new claims 21 to 23 to further clarify several additional features. For instance, claim 21 recites that the modified remote application is changed from a normal mode to a debugging mode. At best, Oracle is merely seen to specify that a Run|Debug option is selected on the debugger itself, and not necessarily that the modified remote application undergoes any such change. *See* Oracle, pg. 8. Furthermore, claim 22 recites that communication between the debugging system and the virtual mode is established with the modified remote application remaining in a normal mode, and not a debugging mode, and claim 23 recites that the communication link is established using shared memory. The applied references are not seen to describe, nor does the Office Action assert that the references describe, any of these newly clarified features.

Based on the foregoing amendments and remarks, independent claims 1, 7, and 14 are believed to be allowable over the applied references. The other rejected claims in the application are each dependent on these independent claims and are thus believed to be allowable over the applied references for at least the same reasons. Because each claim is deemed to define additional aspects of the disclosure, however, the individual consideration of each claim on its own merits is respectfully requested.

It is believed that all of the pending issues have been addressed. However, the absence of a reply to a specific rejection, objection, issue, or comment, including the Office Action's characterizations of the references, does not signify agreement with or concession of that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment or cancellation of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment or cancellation. Since the amendments made herein have been made solely in an effort to expedite advancement of this case, the Applicants reserve the right to prosecute the rejected claims in further prosecution of this or related applications.

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No other matters being raised, it is believed that the entire application is fully in condition for allowance and such action is courteously solicited.

No fees are believed to be due at this time. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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